

November 16, 1961

Dear Charley:


I have had reviewed the proposal of our Boston friends on the combined V/H-AF-IMC technique. I guess we don't really like it. Following is quoted from report:

"The proposed methods of automatic focus control and image motion compensation have been reviewed and the general comment is made that the method appears cumbersome and practically difficult of successful operation under vehicle conditions. This is not to say that it is theoretically unsound. Specific comments follow:

1. Either automatic focus (AF) or image motion compensation (IMC) systems on this principle would require HV excitation source for a vidicon, sweep circuits, focus control, amplifier circuits, filter circuits, all possibly in duplicate, for the generation of the respective basic error information. Furthermore, these circuits would have to be low drift. Following these circuits would be required the servo electronics, just as with a simpler system.
2. The AF method of Figure 5 (not shown in copy furnished) appears preferable, even if only intermittent adjustment is desired.
3. When used for AF, the method requires a stationary image on the sensitive surface of the vidicon, and is thus inherently unsuited to a sweeping camera or any camera moving film at the image plane for IMC. The proposal does state that IMC for the AF would be required.
4. IMC. If quoted figure of motion sensitivity is correct, then a system having a focal length of 25 inches should be capable of measuring V/H of the magnitude of 0.04 to an accuracy of 1/10% which would produce an uncorrected image motion of 0.001 inches/second.
5. Mechanical-Optical motion nulling would be required, making an IMC (V/H) system using this principle an elaborate "tracker".

Sorry to delay so long in answering, but this three ring circus is getting too big.

ELG/MDG

  
E. L. G.

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